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PATENT COOPERATION TREATY

PCT

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY



(Chapter II of the Patent Cooperation Treaty)

(PCT Article 36 and Rule 70)

REC'D 01 SEP 2005

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Applicant's or agent's file reference 2003P05592WO		FOR FURTHER ACTION		See Form PCT/PEA/416
International application No. PCT/EP2004/051064		International filing date (day/month/year) 09.06.2004	Priority date (day/month/year) 15.07.2003	
International Patent Classification (IPC) or national classification and IPC H05K7/02, G02F1/13				
Applicant SIEMENS AKTIENGESELLSCHAFT et al.				
<p>1. This report is the International preliminary examination report, established by this International Preliminary Examining Authority under Article 35 and transmitted to the applicant according to Article 36.</p> <p>2. This REPORT consists of a total of 5 sheets, including this cover sheet.</p> <p>3. This report is also accompanied by ANNEXES, comprising:</p> <p>a. <input checked="" type="checkbox"/> sent to the applicant and to the International Bureau) a total of 2 sheets, as follows:</p> <p><input type="checkbox"/> sheets of the description, claims and/or drawings which have been amended and are the basis of this report and/or sheets containing rectifications authorized by this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions).</p> <p><input type="checkbox"/> sheets which supersede earlier sheets, but which this Authority considers contain an amendment that goes beyond the disclosure in the international application as filed, as indicated in item 4 of Box No. I and the Supplemental Box.</p> <p>b. <input type="checkbox"/> (sent to the International Bureau only) a total of (indicate type and number of electronic carrier(s)) , containing a sequence listing and/or tables related thereto, in computer readable form only, as indicated in the Supplemental Box Relating to Sequence Listing (see Section 802 of the Administrative Instructions).</p>				
<p>4. This report contains indications relating to the following items:</p> <p><input checked="" type="checkbox"/> Box No. I Basis of the opinion</p> <p><input type="checkbox"/> Box No. II Priority</p> <p><input type="checkbox"/> Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability</p> <p><input type="checkbox"/> Box No. IV Lack of unity of invention</p> <p><input checked="" type="checkbox"/> Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement</p> <p><input type="checkbox"/> Box No. VI Certain documents cited</p> <p><input checked="" type="checkbox"/> Box No. VII Certain defects in the international application</p> <p><input type="checkbox"/> Box No. VIII Certain observations on the international application</p>				
Date of submission of the demand 10.12.2004		Date of completion of this report 31.08.2005		
Name and mailing address of the International preliminary examining authority:  European Patent Office D-80298 Munich Tel. +49 89 2399 - 0 Tx: 523656 epmu d Fax: +49 89 2399 - 4465		Authorized Officer Batev, P Telephone No. +49 89 2399-7970 		

**INTERNATIONAL PRELIMINARY REPORT
ON PATENTABILITY**

International application No.
PCT/EP2004/051064

Box No. I Basis of the report

1. With regard to the **language**, this report is based on the international application in the language in which it was filed, unless otherwise indicated under this item.
- ☐ This report is based on translations from the original language into the following language , which is the language of a translation furnished for the purposes of:
- ☐ international search (under Rules 12.3 and 23.1(b))
 - ☐ publication of the international application (under Rule 12.4)
 - ☐ international preliminary examination (under Rules 55.2 and/or 55.3)
2. With regard to the **elements*** of the international application, this report is based on *(replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report):*

Description, Pages

1-8 as originally filed

Claims, Numbers

1-9 filed with telefax on 23.08.2005

Drawings, Sheets

1/6-6/6 as originally filed

- ☐ a sequence listing and/or any related table(s) - see Supplemental Box Relating to Sequence Listing
3. ☐ The amendments have resulted in the cancellation of:
- ☐ the description, pages
 - ☐ the claims, Nos.
 - ☐ the drawings, sheets/figs
 - ☐ the sequence listing *(specify):*
 - ☐ any table(s) related to sequence listing *(specify):*
4. ☐ This report has been established as if (some of) the amendments annexed to this report and listed below had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).
- ☐ the description, pages
 - ☐ the claims, Nos.
 - ☐ the drawings, sheets/figs
 - ☐ the sequence listing *(specify):*
 - ☐ any table(s) related to sequence listing *(specify):*

* If item 4 applies, some or all of these sheets may be marked "superseded."

**INTERNATIONAL PRELIMINARY REPORT
ON PATENTABILITY**

International application No.
PCT/EP2004/051064

Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Yes: Claims	1-9
	No: Claims	none
Inventive step (IS)	Yes: Claims	1-9
	No: Claims	none
Industrial applicability (IA)	Yes: Claims	1-9
	No: Claims	none

2. Citations and explanations (Rule 70.7):

see separate sheet

Box No. VII Certain defects in the international application

The following defects in the form or contents of the international application have been noted:

see separate sheet

Re Item V

Reasoned statement under Rule 66.2(a)(ii) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

Reference is made to the following document:

D1: PATENT ABSTRACTS OF JAPAN vol. 1997, no. 03, 31 March 1997 (1997-03-31) -& JP 08 313880 A (ROHM CO LTD), 29 November 1996 (1996-11-29)

1. The present invention relates to a component carrier (claim 1), in particular for an LCD, and a method of making such a carrier (claim 8).

2. Document D1, which is considered to represent the most relevant state of the art, discloses a component carrier comprising a frame and a double-sided sealing leap, the sealing leap providing mechanical force tolerance and compensation for the component encased in the frame and sealing lip.

The solution proposed in claim 1 differs from this known carrier at least in that

- the sealing lip is dovetailed and comprises a thermoplastic elastomer and two arms, one of said arms being longer than the other, and
- the frame comprises recesses for the elastomer to adhere to.

The subject matter of claim 1 appears, therefore, novel (Article 33(2) PCT).

3. The specific shape of the sealing lip and the recesses in the frame allow to provide the component carrier in a cost efficient and effective manner.

None of the other cited documents, which reflect the technological background, discloses or gives an incitement to the specific solution defined in claim 1.

In view of the available prior art, the subject matter of claim 1 appears, therefore, to involve an inventive step (Article 33(3) PCT).

4. Independent claim 8 is directed to a method of making the inventive carrier of claim 1 and its subject matter involves, consequently, also an inventive step.

5. Claims 2 - 7 and 9 which define preferred embodiments of the invention are dependent on claim 1 or 8, respectively, and as such also meet the requirements of the EPC in respect of novelty and inventive step.

**INTERNATIONAL PRELIMINARY
REPORT ON PATENTABILITY
(SEPARATE SHEET)**

International application No.

PCT/EP2004/051064

Re Item VII

Certain defects in the international application

1. Contrary to the requirements of Rule 5.1(a)(ii) PCT, the relevant background art disclosed in document D1 is not mentioned in the description, nor is this document identified therein.

2003P05592WO
23.08.2005

10

AMENDED PAGES

Claims:

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1. A component carrier (100) comprising a frame (10) and a doubled sided sealing lip (50), the sealing lip (50) providing mechanical force tolerance and compensation for the component encased in the frame (10) and sealing lip (50), characterized in that:

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- the sealing lip (50) is dovetailed and comprises a thermoplastic elastomer and two arms (58a and 58b), a first (58a) of said two arms (58a and 58b) being longer than a second (58b) of said two arms, and

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- the frame (10) comprises recesses for the elastomer to adhere to.

2. The component carrier (100) according to claim 1, wherein the sealing lip (50) comprises a single piece.

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3. The component carrier (100) according to any one of the preceding claims 1 to 2, wherein the frame (10) comprises walls (14) defining an interior opening (12) and the recesses (20) are located along the interior opening (12).

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4. The component carrier (100) according to any one of the preceding claims 1 to 3, wherein the recesses (20) are open V shaped.

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2003P05592WO
23.08.2005

11

AMENDED PAGES

5. The component carrier (100) according to any one of
5 the preceding claims 1 to 5, wherein the sealing
lip (50) is dovetailed comprising two extending
arms (58a, 58b), a first (58a) of the two arms (58a,
58b) being longer than a second (58b).
- 10 6. The component carrier (100) according to claim 5,
wherein the first arm (58a) faces a front (62).
7. The component carrier (100) according to any one of
15 the preceding claims 1 to 6, wherein the component
is a display.
8. A method of making a component carrier (100)
according to claim 1, characterized by:
- 20 - injection molding and/or spraying a sealing
lip (50) around a frame (10), the sealing lip
(50) comprising a thermoplastic elastomer, the
frame (10) comprising walls (14) defining an
interior cavity (12) with recesses (20) along
25 cavity walls (18), and the sealing lip (50)
being molded in the shape of a dovetail, and
 - cooling the sealing lip (50) generated by
injection molding and/or spraying such that
the sealing lip (50) molding adheres to the
30 recesses (20).
9. The method according to claim 8, wherein the
injection molding comprises thermoplastic
35 elastomer.